



# ERA-NET SIINN

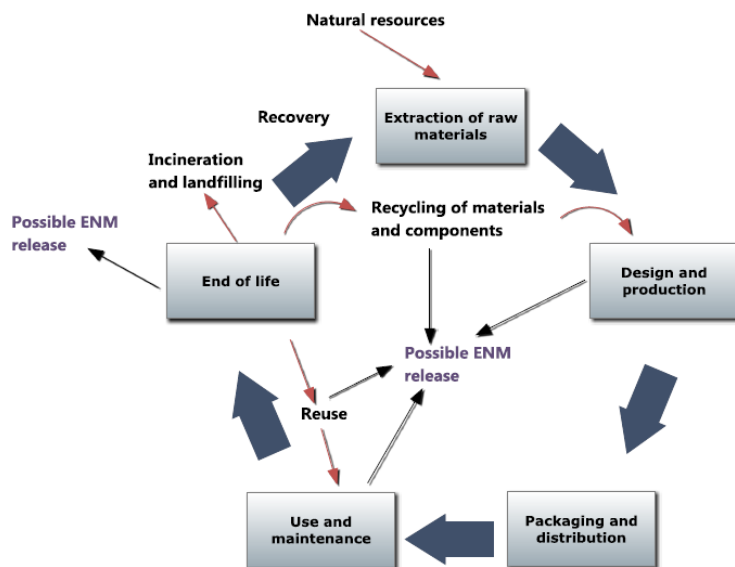
## Safe Implementation of Innovative Nanoscience and Nanotechnology



### What do we do?

The SIINN ERA-NET promotes the safe and rapid transfer of European research results in nanoscience and nanotechnology (N&N) into industrial applications. National and regional resources virtually pooled create a transnational programme of research bringing together today's fragmented research activities on the potential risks of engineered nanomaterials for environment, human health, and safety.

### Generic life cycle of an Engineered Nanomaterial (ENM) which is integrated into a product



### Who are we?

19 partners from 14 European countries and regions are pooling together national and regional resources in order to create a sustainable, coordinated, transnational programme of N&N-related RTD work across Europe, which is utilising the synergies of the national or regional programmes. In addition to strengthening the European Research Area itself, SIINN has created an effective network of ministries, funding agencies, academic and industrial institutions active in the N&N fields.

### Why should you be interested in SIINN?

Eight transnational research projects with partners from 11 countries and a total funding over 6 million € were funded under two SIINN joint transnational calls in 2012 and 2013. These projects are providing valuable results in many fields of nanosafety research. Six of them are presented in the **NanoSafetyWorkshop of EuroNano-Forum on 12 June 2015**, a joint session together with NanoReg and ProSafe CSA.

A third SIINN Joint Transnational Call is ongoing and further projects will be selected for funding which will start in winter 2015/2016.

## **ERA-NET SIINN had achieved some remarkable results within its 4 years duration which are going far beyond the general aims of ERA-NETs.**

They include contributions to creating a sound scientific foundation for nanosafety research: <http://www.siinn.eu/en/the-project-and-results/2-publications/,173>

- **Consolidated Framework for EHS of Manufactured Nanomaterials (D2.6)**  
The purpose of the consolidated framework document is to present a gateway to basic information and definitions for nanomaterials as well as the identification of best practices, synergy potentials and the elaboration of recommendations for future collaborations on the strategic and operational level addressing MNM EHS. This includes precautionary measures, pre-normative work, steps towards regulations as well as common actions and projects.
- **Roadmaps for the safe handling of nano-objects, safe processes, safe products, and safe transportation of nano-products addressing identified gaps (D2.7)**  
This final roadmap contains maps projected as priority actions at short term with suggestions for the contents of future calls, but also at medium and long term for each axis of interest: research activities extracted from the EU projects and life cycle coming from the SIINN DOW.

**Further reliable information has been compiled and validated within this project.**

### **Development and implementation of a Common Database Platform (D2.8)**

The Common Database Platform is not a new database, but a unique starting point for searches that covers all relevant resources in nanosafety. This document describes the settings of this database and its history.

### **Health Data Selection (D3.3)**

Information has been obtained primarily from original research papers published in international peer-reviewed scientific journals. This includes meta-analyses and reviews when deemed appropriate. Additional sources of information have also been considered: web-based information retrieval, documents from Governmental bodies and authorities. It provides a confirmed selection of nearly 1400 references.

### **Guidelines for EHS Assessment (D3.6)**

Risk assessment has to take into account the entire value chain of the material, and focus the efforts on the stages where actual exposure is realistic. This deliverable provides an overview of risk assessment in general, and more specific analyses of challenges for ENM RA.

### **Inventory of knowledge gaps (D3.7)**

This document aims at presenting major impediments for ENM risk assessment due to specific knowledge gaps. The ambition is not to put focus on all areas where additional knowledge is needed or wanted, but to stress the most crucial gaps in knowledge and approaches, where possible accompanied by specific research recommendations and advice.

## Transnational research projects funded by SIINN

### Joint Transnational Calls 2012 and 2013

#### **NanoIndex**, : <http://www.nanoindex.eu>

“Assessment of individual exposure to engineered nanomaterials by means of personal monitors and samplers”

Partners from France, Germany, Italy, Switzerland, United Kingdom

Total funding volume: 993,365 Euro

#### **NanOxiMet** <http://www.nanoximet.eu>

“Oxidant generating capacity as a metric to allow grouping of nanomaterials and prediction of human health effects”

Partners from France, Germany

Total funding volume: 818,888 Euro

#### **NANOHETER** <http://nanoheter.cerege.fr>

“Fate of engineered nanoparticles in the water column under natural conditions. Role of the heteroaggregation with naturally occurring suspended matter”

Partners from France, Switzerland, USA

Total funding volume: 526,539 Euro

#### **NanoToxClass**

“Establishing nanomaterial grouping/classification strategies according to toxicity and biological effects for supporting risk assessment”

Partners from Germany, Israel, Portugal, Romania, Wallonia

Total funding volume: 1,536,561 Euro

#### **FENOMENO**

„Fate and effect of wastewater-borne manufactured nanomaterials in aquatic ecosystems“

Partners from Austria, Germany, Portugal

Total funding volume: 1,112,194 Euro

#### **PLATOX**

“In vitro and in vivo investigations to generate validated toxicity data of graphene nanoplatelets vs. a carbon black reference”

Partners from Germany, Romania, Portugal

Total funding volume: 356,700 Euro

#### **NANO\_SAFE\_LEATHER**

“The effect on human health of Ag/TiO<sub>2</sub> NM-treated leathers for footwear industry”

Partners from Austria, Portugal, Romania

Total funding volume: 466,739 Euro

#### **NanoGeCo**

“Nanoparticle generation by atomization processes in spray coating”

Partners from Austria, Germany (not funded by BMBF), Wallonia

Total funding volume: 902,950 Euro (including German in-kind contribution by Fraunhofer)

## Source of data relevant for nanosafety research

The common SIINN database platform makes use of the NANOhub/IUCLID data base of the Commission's Joint Research Centre in Ispra. Data compatible with the OECD Working Party on Manufactured Nanomaterials (WPMN) use the OECD harmonized templates (OHTs). Verified data sets from literature have been entered into the data base and more data sets are going to be integrated. <http://www.siinn.eu/en/news-events/development-and-implementation-of-a-common-database-platform,3,61>

An important issue is the sustainability of the SIINN project and the research programmes on nanosafety. Although SIINN is ending within few months, the spirit of SIINN will endure, continued by the ProSafe CSA with some partners of SIINN in its consortium and the launch of, at least, one joint transnational call.



## SIINN Consortium

The Final Meeting of the Steering Committee of SIINN on 7 - 8 May 2015 in Madrid draw a positive conclusion on the achieved results and an acknowledged positive look forward due to good networking among the funding agencies.



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[www.siinn.eu](http://www.siinn.eu)